

ABSTRACT OF THE DISCLOSURE

A CVI furnace is described in which single layer of a porous material or multiple layers of porous materials stacked in a module are loaded into a furnace. The modules are loaded into the furnace singularly or as multiple units stacked vertically or side by side. The modules can be moved through the furnace continuously or step-wise. The furnace comprises a separate CVI chamber. The porous material is heated and subjected to densification, thereby ensuring a dispersion of the reactant gas onto the porous material. A process of densifying a sheet of porous material is also described.